

REMARKS

Applicant wishes to thank the Examiner for considering the Amendment filed November 30, 2005.

By this Amendment, certain paragraphs of the Specification have been amended to remove reference to publicly available Instruction for Use manuals and to correct minor typographical errors made by Applicant.

Upon entry of the above Amendment, claims 1-69 will remain pending in this application. By this Amendment, claims 1 and 27 have been amended. The amended claim set is provided herewith.

No new matter has been added as a result of the amendments provided herein. Claim 1 has been amended to recite “identifying a mammalian subject suffering from, or at risk for, a disease or disorder mediated by a proinflammatory mediator.” Support for this amendment can be found throughout the specification where it is discussed either directly or indirectly that such subjects receive may receive therapy. For example, at paragraphs 44-45, various disorders, diseases and conditions that such subjects suffer from or may be at risk of are mentioned. At paragraph 58, a discussion of the benefits of reducing side effects is provided. Of course, this applies to living subjects. Further, at paragraph 102, it is discussed that subjects may be diagnosed for a disorder or disease. In addition, claim 19, which depends from claim 1, recites “a patient suffering from, or at risk for, a disease or disorder mediated by an inflammatory cytokine cascade.” For at least these reasons, there is adequate support for the amendment to claim 1. Claim 27 has been amended to recite that the “patient is **diagnosed as** suffering from, or at risk for, a disease or disorder mediated by the inflammatory cytokine cascade.” Support for such language can be found at least in the same areas of the specification discussed above with regard to claim 1. Accordingly, no new matter has been added.

§ 102 Rejection of the Claims

I. Rezai, U.S. Patent Publication No. 2002/0116030

Claims 1-13, 19-21, 23-24, 27-31, 34-35, 40, 42, 47, 55, 57 and 59-60 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Rezai, U.S. Patent Publication No. 2002/0116030. Applicant respectfully traverses the rejection to the extent it is maintained.

According to the office action mailed January 23, 2006 (the "Office Action"), Rezai discloses stimulation of a sympathetic neuron and that such stimulation would have resulted in inhibiting the release of a proinflammatory mediator. While Applicant does not present any objections to this line of reasoning at this time, Applicants reserve the right to comment on this issue as appropriate in response to subsequent office actions. However, the Office Action states that Rezai does not disclose that such stimulation will "inhibit the release of a proinflammatory mediator." Office Action at page 2.

As the Office Action indicates, Rezai does not recognize that stimulation of a sympathetic neuron or the sympathetic system results in inhibition of release of a proinflammatory mediator. As such, Rezai is silent (directly and inherently) as to the use of sympathetic stimulation for such a purpose. Accordingly, Rezai does not teach that one could identify or diagnose a subject suffering from or at risk of an inflammatory disease or disorder and that such subjects may receive stimulation therapy to improve their condition through inhibition of release of a proinflammatory mediator. As such, Rezai does not anticipate present claims 1 and 27, or dependent claims 2-13, 19-21, 23-24, 28-31, 34-35, 40, 42, 47, 55, 57. Withdrawal of this rejection is respectfully requested.

II. Straub, et al. (1997), J. Neurochem: 68 (4), 1633-1639.

Claims 1, 14-16 and 25 have been rejected under 35 U.S.C. 102(b) as allegedly being anticipated by the Straub, et al. reference (Straub). Applicant respectfully traverses the rejection.

Straub discloses studies on murine spleens in an attempt to elucidate certain aspects of neuronal-immune communication. Straub fails to disclose identifying a subject suffering from, or at risk for, a disease or disorder mediated by a proinflammatory mediator. As such, Straub fails to teach or disclose each and every element of claim 1. For at least this reason, Straub does

not anticipate claim 1, and thus dependent claims 14-16 and 25. Accordingly, withdrawal of the rejection is respectfully requested.

§ 103 Rejection of the Claims

Claims 14, 17-18, 22-26, 33, 36-39, 41, 43-46, 48-54, 56, 58 and 61-69 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Rezai (U.S. Patent Publication No. 2002/0116030) in view of Tracy (U.S. Patent No. 6,610,713). Applicant traverses the rejection to the extent it is maintained.

One of skill in the art would not combine the teachings of Rezai and Tracey to arrive at the method of present claims 1 and 27 with any reasonable expectation of success. As stated above, Rezai does not recognize that stimulation of the sympathetic system (or a neuron thereof) would produce an anti-inflammatory effect, while Tracey discloses that stimulation of the parasympathetic system (or a neuron thereof) results in an anti-inflammatory response. The sympathetic (fight or flight) and parasympathetic (rest and digest) nervous system generally act in opposing fashion. Stimulation of the sympathetic system (or a neuron thereof) would be expected to produce a result that is vastly different from stimulation of the parasympathetic system (or a neuron thereof). One of skill in the art would not look to stimulating a neuron of the sympathetic nervous system to effectuate a physiologic change similar to one shown to occur when stimulating a neuron of the parasympathetic system. Because of the antagonistic nature of these two systems, one would not have expected that stimulating a neuron of the sympathetic nervous system would result in inhibition of the release of proinflammatory mediators or inhibition an inflammatory cytokine cascade in a manner similar to stimulation of a parasympathetic neuron. In fact, one would have expected an *increased* inflammatory response if reviewing the disclosures of Rezai and Tracey. Accordingly, the combined disclosures of Rezai and Tracey *teach away* from stimulation of the sympathetic system (or a neuron thereof) to effectuate an anti-inflammatory response, and therefore teach away from all the claims presented in the present application. Accordingly, the combined teachings of Rezai and Tracey do not render claims 14, 17-18, 22-26, 33, 36-39, 41, 43-46, 48-54, 56, 58 and 61-69 obvious. Withdrawal of the rejection is respectfully requested.

Provisional Rejections

Claims 1-69 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-129 of copending Application Serial No. 10/820,677, now Publication No. US 2005-0075701 ("Shafer").

Applicant will consider submission of a terminal disclaimer upon notification of allowance of the claims set forth herein.

In view of the foregoing amendments, Applicants respectfully request reconsideration and allowance of the claims as all rejections have been overcome. Early notice of allowability is kindly requested.

The Examiner is respectfully requested to contact the undersigned by telephone at 763.505.0405 or by E-mail at keith.m.campbell@medtronic.com with any questions or comments.

Please grant any extension of time, if necessary for entry of this paper, and charge any fee due for such extension or any other fee required in connection with this paper to Deposit Account No. 13-2546.

Respectfully submitted,

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